

**ORIGINAL** **COVER LETTER FROM**



0000130906

***SABROSA WATER COMPANY, INC.***

**PO Box 12742 Prescott AZ 86304**

**(928) 778-1888**

**November 2, 2011**

**RE DOCKET # W-02111A -11-0340**

**ARIZONA CORPORATION COMMISSION**

**Attached is an "Amended Finance" application for a revised amount  
on the above Docket No.**

Don Bohler  
Sabrosa Water Company

Arizona Corporation Commission  
**DOCKETED**

**NOV 3 2011**

DOCKETED BY	
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**AZ CORP COMMISSION  
DOCKET CONTROL**

**2011 NOV -3 A 8:17**

**RECEIVED**

# ARIZONA CORPORATION COMMISSION



## FINANCING APPLICATION

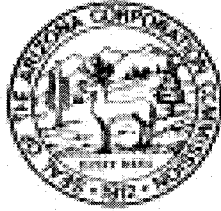
Sabrosa Water Company  
UTILITY NAME

W-02111A-11-0340  
DOCKET NO(S)

You must complete ALL items in the application according to the instructions provided. If you have any questions regarding the application please call (602) 542-4251 for Staff assistance.

IN ORDER TO PROCESS YOUR APPLICATION  
PLEASE FORWARD THE ORIGINAL  
AND THIRTEEN COPIES OF THE  
**APPLICATION** PLUS  
THREE PACKETS OF THE SUPPORTING  
DOCUMENTATION TO:

ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL CENTER  
1200 WEST WASHINGTON STREET  
PHOENIX, ARIZONA 85007



# ARIZONA CORPORATION COMMISSION

## Filing Requirements

### ALL FILINGS REQUIRE

- 1.) An original + 13 copies
- 2.) The Docket number **MUST** be on all copies of the filing [to include the Cover Sheet].
  - a) The exception is a New Application.
- 3.) All copies must be properly collated.
  - a) Please do not send stacks of documents for Docket to collate.
- 4.) No confidential or proprietary information will be docketed.
  - a) If you must file confidential information, you must make prior arrangements with the Hearing or Legal Division(s).
  - b) It is also the filing parties' responsibility to remove or redact any personal information that would not be appropriate for public view.
- 5.) All documents must be filed on 8-1/2" x 11" paper – **NO EXCEPTIONS.**  
(Additional copies to be distributed to parties may be larger if necessary, please contact Docket Control 602-542-3477 for more information.)
- 6.) If the filing is for an existing Docket, the filing party must mail the filed document to ALL parties on the Service List (see E-Docket for copy of Service List).

### COVER SHEETS ARE NO LONGER REQUIRED

If you have any questions concerning the filing of documents please contact Docket Control at (602) 542-3477.

### **Application Information Regarding Arizona Revised Statutes 40-301 and 40-302**

The application for financing approval pursuant to Arizona Revised Statutes 40-301 and 40-302 shall include the following information:

1. The applicant's exact name and the address of its principal business office.
2. Name and address of the person authorized, on behalf of applicant, to receive notices and communications regarding the application.
3. A full description of the financings (debt or equity) proposed to be issued showing the kind, nature, and amount, the interest or dividend rate if any and its frequency, date of maturity, call features, voting privileges, and other detailed information regarding the financing itself. An explanation of whether the assets of the company will be encumbered by the financing (e.g. bank loan that is secured by company assets). If the financing is debt then provide a schedule of interest and principle payments. If the financing is a line of credit then provide a schedule of expected draw downs. Provide a description of the proposed method of issuing and selling the financing, including any special distribution rights to existing holders of the company's securities.
4. A statement showing the expected gross proceeds, issuance expenses, and net proceeds from the issuance and sale.
5. A complete description of the uses of the net proceeds, including descriptions of plant, property, or other assets to be acquired. Provide any capital expenditure budget that supports the proposed use of proceeds.
6. A statement that demonstrates why the financing is:
  - a. Within the corporate powers of the applicant;
  - b. Compatible with the public interest;
  - c. Compatible with sound financial practices; and,
  - d. Compatible with the proper performance by the applicant of service as a public service corporation and will not impair its ability to perform that service.
7. The name and address of any person receiving, or entitle to, a fee for service in connection with the issuance or sale of the financing and a demonstration that such fees do not exceed customary fees for such service in an arms-length transaction and are reasonable.
8. Provide a copy of any documents to be executed in the matter.

9. Provide the most recent balance sheet and income statement showing booked amounts and pro forma adjustments to record and show the effect of the transaction. Provide any other statements (such as pro forma statements from prior periods) that would demonstrate that the security issuance and sale is consistent with sound financial practices.
10. The Commission requires the Company to notice customers of the financing application. Attached is a copy of the notice to be used. Fill in the notice's blanks and either insert a copy of the notice in customers' next bill or have it published at least once in a newspaper of general circulation in the area in which the company serves. Please send proof of noticing to the Commission. Proof consists of the dated bill insert, a copy of the notice as it appeared in the newspaper or the receipt from the newspaper showing the date the notice is to be published.
11. Submit an original and thirteen (13) copies of the application and three (3) copies of the supporting documents to the following:

Arizona Corporation Commission  
Docket Control Center  
1200 West Washington Street  
Phoenix, Arizona 85007

PUBLIC NOTICE  
OF  
AN APPLICATION FOR AN ORDER

AUTHORIZING THE ISSUANCE OF Wifa (security)  
BY Sabrosa Water Company (company)

Sabrosa Water Company ("Company") filed an Application with the Arizona Corporation Commission ("Commission") for an order authorizing Applicant to issue \$ 136,252 (gross proceeds) of WIFA (security to be issued). The application is available for inspection during regular business hours at the office of the Commission in Phoenix, Arizona, and the Company's offices in Prescott Valley, Arizona.

Intervention in the Commission's proceedings on the application shall be permitted to any person entitled by law to intervene and having a direct substantial interest in this matter. Persons desiring to intervene must file a Motion to Intervene with the Commission which must be served upon applicant and which, at a minimum, shall contain the following information:

1. The name, address and telephone number of the proposed intervenor and of any person upon whom service of documents is to be made if different than the intervenor.
2. A short statement of the proposed intervenor's interest in the proceeding.
3. Whether the proposed intervenor desires a formal evidentiary hearing on the application and the reasons for such a hearing.
4. A statement certifying that a copy of the Motion to Intervene has been mailed to Applicant.

The granting of Motions to Intervene shall be governed by A.A.C. R14-3-105, except that all Motions to Intervene must be filed on, or before, the 15<sup>th</sup> day after this notice.

***SABROSA WATER COMPANY, INC.***

**PO box 12742 Prescott AZ 86304  
(928) 778-1888**

**November 2, 2011**

**RE DOCKET # W-02111A -11-0340**

**ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL  
UTILITIES DIVISION  
FAX 602-542-2129**

**Attached are the estimates and project plans for 'Well head ' arsenic treatment for the Sabrosa Well and Zorrillo Well sites.**

**The total estimate for the Sabrosa Well site is \$62,627.43 + \$1,000.00 MCESD initial permit & review fees.**

**The total estimate for the Zorrillo Well site is \$71,624.94 + \$1,000.00 MCESD initial permit & Review fees.**

**Due to the unexpected high estimates for both well sites, we would like to suggest that we could take the Sabrosa Well off line and leave the water tank & booster pump on line in case water needs to be hauled in.**

**We are also requesting that the time clock resume in this rate case.**

**Don Bohlier**

**Sabrosa Water Company**



## **Proposal**

Sabrosa Water Company  
Attn: Don Bohler  
928-713-3772

November 1, 2011

### **Job Location: Sabrosa Well # 1**

#### **Scope of Work:**

- 1) Provide all materials, and labor for field installation of the water treatment equipment and system including electrical circuits detailed on the documents provided by AdEdge Technologies dated 10-21-2001 for well site #1. This includes new sand pad for backwash water holding tank. Arrange for site loading and unloading as per AdEdge Technologies documents listed above.
- 2) Provide and install a new treated water atmospheric tank logic panel for low water cut off, high water shut off, low water cut in and dry contacts for alarm circuitry. Provide and install (1) 1 HP Pump saver module at control panel for the well pump. Also provide and install (1) 7 day pump control at the distribution pump as specified by system operator.
- 3) Provide and install a new concrete mechanical pad for the new water system to be installed on. Provide and install a structural solar cover over the mechanical pad to protect the new mechanical equipment.
- 4) Provide and install a new 2 inch water line underground from the water treatment system to the atmospheric treated water tank. Complete and assist start up of system at project completion.

#### **Exclusions:**

Tax, Water testing, Electrical panel upgrades if required, elastomeric coatings for exposed piping, Freeze protection and insulation.

**TOTAL CONSIDERATION:** **\$28,027.43 includes tax**

<b>Deposit ( 50%)</b>	<b>\$14,013.73</b>
<b>Material delivery ( 15%)</b>	<b>\$ 4,204.11</b>
<b>Substantial Completion (15%)</b>	<b>\$ 4,204.11</b>
<b>Water flow test (10%)</b>	<b>\$ 2,802.74</b>
<b>Balance due upon start up (10%)</b>	<b>\$ 2,802.74</b>





## Sabrosa Water Company

## Site Profile and Proposal

## Contact Information

Customer / Utility:	Sabrosa Water Company	Date:	10/21/2011
Site or Well Identity / Location:	Sabrosa Well #1 - AZ	Contact:	Don Bohler
Local Engineer / Firm:	Kathy Mills - Mills Engineering	Contact Phone:	928-713-3772
Engineer Phone:		Fax:	
Operator:	Don Bohler	Email:	dbohler@cableone.net
Target Date for Installation:	2011 - Immediate Need	Rep:	Doug Craver - 480-243-1824
Treatment Goals:	Treatment needed to reduce arsenic < 10 ug/L consistently		

## System Parameters / Site Specific Info

System Type / Application:	Community Well	(utility, school, MHP, other)	Site Specific Notes:
Population Served:	100	(estimated)	Small building is available if equipment foot print small enough
Number of Connections:	45		Old Proposals for this site in Cave Creek Folder
Number of Wells to be treated:	1	(# wells to be treated)	WIFA loan is funded for 35K for both well sites
Design Flow (GPM):	13	(Max design flow rate)	Additional Funding can be attained if needed
Ave Flow (GPM):	13	(Typical demand)	Corporation Commission currently operating system and
Adedge Sizing Basis (GPM):	13	(Sizing Basis - Adedge)	contracted with Don Bohler to bring system into compliance
Gallons per day:	1,200	(Ave throughput per day)	Install before end of 2011 (required)
Est. Usage (Gals / Year):	438000	(Best estimate)	Arsenic ranged from 33-37 ug/l over the past year
Existing Pretreatment or disinfection:	Chlorination - Sediment Filtration		
Equipment available for offloading:	Assumed		
Pump Operation / Pressure:	40-60		
Electrical Power Availability:	120V		
Atm Storage Tank Present / Size:	2,000 gallon Atmospheric		
Hydropneumatic Tank Present / Size:	None		
Building present:	10'L x 6'W x 7'H		
Any additives ie, phosphates, fluoride:	None		
Discharge Options available:	None - Backwash Recycle Option Requested		

## Water Analysis

## Project Specific Parameters

Codes: All = Applies to all projects

- 1 = Arsenic project
- 2 = Iron / Mn / Sulfide / As project
- 3 = Fluoride project
- 4 = Uranium, Radium project
- 5 = Nitrate project
- 6 = General Filtration
- 7 = UF / RO Membrane Filtration
- 8 = Other

Parameters	
pH	7.50 units
Total As	0.035 mg/L As
As(III)	no data mg/L (if known)
Total Sulfides	no data mg/L (total sulfides)
Hardness	no data mg/L (as CaCO3)
Alkalinity	no data mg/L (as CaCO3)
Calcium	no data mg/L @ Ca
Magnesium	no data mg/L @ Mg
Silica	59.70 mg/L SiO2
Phosphate	0.05 mg/L P04
Suspended Solids	no data mg/L TSS
Iron	0.05 mg/L Fe
Manganese	0.02 mg/L Mn
TOC	no data mg/L TOC

Parameters	
Sodium	67.0 mg/L Na
Chlorides	no data mg/L Cl
Nitrates	22.0 mg/L as NO3
Conductivity	no data
Bicarbonates	no data mg/L (as CaCO3)
Sulfate	no data mg/L as SO4
Fluoride	0.5 mg/L F
TDS	no data mg/L TDS
Gross Alpha	no data pCi/L
Radium	no data pCi/L Ra 226/228
Uranium	no data mg/L U 238
Turbidity	no data NTU
Temperature	no data degrees F
Tannins	no data mg/L

## Adsorption

AdEdge Adsorption System:	MOD33-2162CO-2-285LL
No of adsorbers:	(2) 21" x 62"
Qty of media (cu ft):	12
Adsorption System Approximate Footprint:	63"L x 30"W x 80"H
Media:	Bayoxide E33 10x35
Operation:	Lead / Lag
Backwash Frequency:	30-60 days @ 22 gpm
Backwashing rate:	9 gpm/sq ft
Est. BW water (gallons) per event:	528

Contact time (EBCT):	3.5	(based on peak flow)
Ave flow rate:	13.0	(typical expected)
Ave gallons/day:	1,200	(based on utilization)
Hydraulic Utilization %:	6.41%	(actual system utilization 24-7)
Est. working capacity:	19,407	(bed volumes to breakthrough)
Bed volumes/day:	13	(throughput)
Est. Gallons to breakthrough:	1,741,938	(arsenic breakthrough)
E33 Est. Media life (months):	24.2	(est frequency of changeout)
E33 Est. Media life (Years):	2.0	(est Lead Vessel)

## Capital and Operating Costs

Treatment System Capital:	Included
Sodium Hypochlorite Module:	Use Existing
AdEdge Shop Drawings:	Included
Installation & Permits:	By Others
AdEdge Startup and Commissioning:	Included
Total Capital and Startup Costs:	\$23,800

Replacement E33 media:	\$1,800	(media, excluding labor)
Est. Annual Consumable:	\$200	("If added at a later date)
Est. Annual Oper. Costs:	\$893	(media, consumable)
Operating Costs per 1000 gal:	\$0.01	(average calculated)
Est. media disposal:	<\$300	
Est. Monthly Cost / Connection:	\$1.65	

Options:	
H2Zero Backwash Recycle Module:	\$7,000

Total w/ Options:	\$30,800
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# AdEdge Arsenic Adsorption System

## System Scope of Supply and Features



Sabrosa Water Company

10/21/2011

### Adsorption Vessels/Media

MOD33-2162CO-2-285-LL, adsorption system rated for up to 13 gpm flow  
Non skid-mounted system for field installation  
(2) 21 x 62-inch composite vessels in Lead / Lag Configuration  
SCH 80 PVC hub and lateral collection system and riser  
AdEdge E33 arsenic adsorption media, (12) cubic feet total  
Gravel/quartz underbedding  
Media fill: 6-inch top flange each vessel

### Process Valves, Piping and Instrumentation

Top mounted automatic flow control package with Fleck controls  
Automatic functions / cycles  
(2) 2850NXT LCD timers  
1.5-inch inlet / outlet threaded connections for each valve  
1.0-inch discharge outlet threaded connection for each valve  
2.0-inch mag meter for monitoring flow and water usage (installed by contractor)  
(4) 0-100 psi pressure gauges (installed by contractor)  
1.0-inch manual diaphragm valve for backwash flow control (installed by contractor)  
1.5" Auxilliary Backwash Inlet with Acutated Valve, Check Valves and Relay Box  
1" Backwash Recycle Inlet (installed by contractor)  
Field piping to be completed by contractor

### Field Services & Miscellaneous

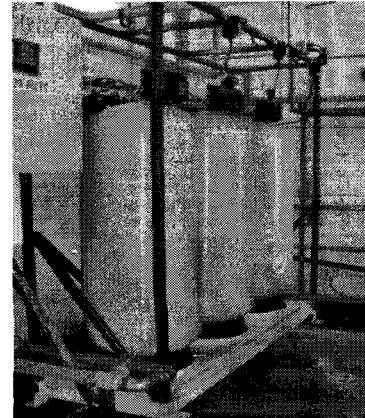
AdEdge on-site start-up and commissioning of equipment  
(1) Standard Operation & Maintenance manual provided at time of startup

### Customer Provided Support

System receiving, offloading, and installation by others  
Single phase 115v, 15 amp service to each process valve and dosing pump  
Concrete slab or base for modular mounted unit  
Existing building or protected from natural elements  
Consistent water supply at 30 PSIG for service and backwash  
1.5-inch rigid discharge to customer supplied drain  
Unions, isolation & sample valves provided and installed by contractor  
Availability of installer or operator for start up assistance

### Terms

Lead time is 6-8 weeks for shipment to site upon receipt of purchase order  
Freight is not included in capital pricing; FOB mfg location or Atlanta, GA  
One year manufacturer warranty on equipment (terms and conditions to be provided)  
30% due upon purchase order, 70% balance due upon shipment  
Pricing valid for 45 days  
Sales / use tax not included



Example Modular Treatment System

### Backwash Storage Tank

(1) 750 Gallon Backwash Tank  
Polyethylene vertical storage tank; dimension  
48" dia. X 102" h  
in/out/drain bulkhead fittings, level controls  
Level Transmitter with 4-20mA signal to AdEdge panel  
Offloading and Installation by others

### Backwash Recycle Pump

Automated Control and system intergration  
Grundfos vertical centrifugal pump skid  
throttling valve, gauges, check valve  
1.3 GPM @ 60 psi;  
Local control panel with HOA switch

### Post Filtration

(1) BFN-12 Stainless Steel bag filter housings  
Pressure Gauge and Stainless Steel sample valve  
(50) 1-Micron Polyfelt bag filters  
2" Offset Inlet & Outlet



## **Proposal**

Sabrosa Water Company  
Attn: Don Bohler  
928-713-3772

November 1, 2011

### **Job Location: Zorillo Well Site # 9**

#### **Scope of Work:**

- 1) Provide all materials and labor for field installation of the water treatment equipment and system including electrical circuits detailed on the documents provided by AdEdge Technologies dated 10-21-2001 for well site #9. This includes new sand pad for backwash water holding tank.
- 2) Arrange for site loading and unloading of all new equipment as per the AdEdge Technologies documents listed above.
- 3) Provide and install a new concrete mechanical pad for the new water system to be installed on. Provide and install a structural solar cover over the mechanical pad to protect the new mechanical equipment.
- 4) Complete and assist start up of the system at time of completion.

#### **Exclusions:**

Tax, Water testing, Electrical panel upgrades if required, elastomeric coatings for exposed piping, Freeze protection and insulation.

**TOTAL CONSIDERATION:** \$23,124.94 includes tax

Deposit ( 50%)	\$11,562.48
Material delivery ( 15%)	\$ 3,468.74
Substantial Completion (15%)	\$ 3,468.74
Water flow test (10%)	\$ 2,312.49
Balance due upon start up (10%)	\$ 2,312.49



## Sabrosa Water Company

## Site Profile and Proposal

## Contact Information

Customer / Utility: Sabrosa Water Company  
Site or Well Identity / Location: Sabrosa Well #9 - AZ *20m110*  
Local Engineer / Firm: Kathy Mills - Mills Engineering  
Engineer Phone:  
Operator: Don Bohler  
Target Date for Installation: 2011 - Immediate Need  
Treatment Goals: Treatment needed to reduce arsenic < 10 ug/L consistently

Date: 10/21/2011  
Contact: Don Bohler  
Contact Phone: 928-713-3772  
Fax:  
Email: dbohler@cableone.net  
Rep: Doug Craver - 480-243-1824

## System Parameters / Site Specific Info

System Type / Application: Community Well (utility, school, MHP, other)  
Population Served: 100 (estimated)  
Number of Connections: 45  
Number of Wells to be treated: 1 (# wells to be treated)  
Design Flow (GPM): 37 (Max design flow rate)  
Ave Flow (GPM): 37 (Typical demand)  
Adedge Sizing Basis (GPM): 37 (Sizing Basis - Adedge)  
Gallons per day: 9,500 (Ave throughput per day)  
Est. Usage (Gals / Year): 3,467,500 (Best estimate)  
Existing Pretreatment or disinfection: Chlorination - Sediment Filtration  
Equipment available for offloading: Assumed  
Pump Operation / Pressure: 40-60  
Electrical Power Availability: 120V  
Atm Storage Tank Present / Size: 2,000 gallon Atmospheric  
Hydropneumatic Tank Present / Size: None  
Building present: 10'L x 6'W x 7'H  
Any additives ie, phosphates, fluoride: None  
Discharge Options available: None - Backwash Recycle Option Requested

## Site Specific Notes:

Small building is available if equipment foot print small enough  
Old Proposals for this site in Cave Creek Folder  
WIFA loan is funded for 35K for both well sites  
Additional Funding can be attained if needed  
Corporation Commission currently operating system and contracted with Don Bohler to bring system into compliance  
Install before end of 2011 (required)  
Arsenic ranged from 33-37 ug/l over the past year

## Site Shipping Address:

## Water Analysis

## Project Specific Parameters

Codes: All = Applies to all projects

- 1 = Arsenic project
- 2 = Iron / Mn / Sulfide / As project
- 3 = Fluoride project
- 4 = Uranium, Radium project
- 5 = Nitrate project
- 6 = General Filtration
- 7 = UF / RO Membrane Filtration
- 8 = Other

Parameters	units
pH	7.50
Total As	0.039 mg/L As
As(III)	no data mg/L (if known)
Total Sulfides	no data mg/L (total sulfides)
Hardness	no data mg/L (as CaCO3)
Alkalinity	no data mg/L (as CaCO3)
Calcium	no data mg/L @ Ca
Magnesium	no data mg/L @ Mg
Silica	75.60 mg/L SiO2
Phosphate	0.05 mg/L P04
Suspended Solids	no data mg/L TSS
Iron	0.05 mg/L Fe
Manganese	0.02 mg/L Mn
TOC	no data mg/L TOC

Parameters	
Sodium	no data mg/L Na
Chlorides	no data mg/L Cl
Nitrates	no data mg/L as NO3
Conductivity	no data
Bicarbonates	no data mg/L (as CaCO3)
Sulfate	no data mg/L as SO4
Fluoride	no data mg/L F
TDS	no data mg/L TDS
Gross Alpha	no data pCi/L
Radium	no data pCi/L Ra 226/228
Uranium	no data mg/L U-238
Turbidity	no data NTU
Temperature	no data degrees F
Tannins	no data mg/L

## Adsorption

AdEdge Adsorption System: MOD33-3672CO-2-285LL  
No of adsorbers: (2) 36" x 72"  
Qty of media (cu ft): 40  
Adsorption System Approximate Footprint: 94"L x 48"W x 94"H  
Media: Bayoxide E33 10x35  
Operation: Lead / Lag  
Backwash Frequency: 30-60 days @ 63 gpm  
Backwashing rate: 9 gpm/sq ft  
Est. BW water (gallons) per event: 1,512

Contact time (EBCT): 4.0 (based on peak flow)  
Ave flow rate: 37.0 (typical expected)  
Ave gallons/day: 9,500 (based on utilization)  
Hydraulic Utilization %: 17.83% (actual system utilization 24-7)  
Est. working capacity: 8,045 (bed volumes to breakthrough)  
Bed volumes/day: 32 (throughput)  
Est. Gallons to breakthrough: 2,406,979 (arsenic breakthrough)  
E33 Est. Media life (months): 4.2 (est frequency of changeout)  
E33 Est. Media life (Years): 0.4 (est Lead Vessel)

## Capital and Operating Costs

Treatment System Capital: Included  
Sodium Hypochlorite Module: Use Existing  
AdEdge Shop Drawings: Included  
Installation & Permits: By Others  
AdEdge Startup and Commissioning: Included  
Total Capital and Startup Costs: \$35,900

Replacement E33 media: \$6,000 (media, excluding labor)  
Est. Annual Consumable: \$200 (\*If added at a later date)  
Est. Annual Oper. Costs: \$17,050 (media, consumable)  
Operating Costs per 1000 gal: \$4.92 (average calculated)  
Est. media disposal: <\$300  
Est. Monthly Cost / Connection: \$31.57

Options:  
H2Zero Backwash Recycle Module: \$8,800

Total w/ Options: \$44,700

# AdEdge Arsenic Adsorption System

## System Scope of Supply and Features



Sabrosa Water Company

10/21/2011

Sabrosa Well #9 - AZ

### Adsorption Vessels/Media

MOD33-3672CO-2-315-LL, adsorption system rated for up to 37 gpm flow

Non skid-mounted system for field installation

(2) 36 x 72-inch composite vessels in Lead / Lag Configuration

SCH 80 PVC hub and lateral collection system and riser

AdEdge E33 arsenic adsorption media, (40) cubic feet total

Gravel/quartz underbedding

Media fill: 6-inch top flange each vessel

### Process Valves, Piping and Instrumentation

Top mounted automatic flow control package with Fleck controls

Automatic functions / cycles

(2) 3150NXT LCD timers

2.0-inch inlet / outlet threaded connections for each valve

2.0-inch discharge outlet threaded connection for each valve

2.0-inch mag meter for monitoring flow and water usage (installed by contractor)

(4) 0-100 psi pressure gauges (installed by contractor)

2.0-inch manual diaphragm valve for backwash flow control (installed by contractor)

2" Auxiliary Backwash Inlet with Acutated Valve, Check Valves and Relay Box

1" Backwash Recycle Inlet (installed by contractor)

Field piping to be completed by contractor

### Field Services & Miscellaneous

AdEdge on-site start-up and commissioning of equipment

(1) Standard Operation & Maintenance manual provided at time of startup

### Customer Provided Support

System receiving, offloading, and installation by others

Single phase 115v, 15 amp service to each process valve and dosing pump

Concrete slab or base for modular mounted unit

Existing building or protected from natural elements

Consistent water supply at 30 PSIG for service and backwash

1.5-inch rigid discharge to customer supplied drain

Unions, isolation & sample valves provided and installed by contractor

Availability of installer or operator for start up assistance

### Terms

Lead time is 6-8 weeks for shipment to site upon receipt of purchase order

Freight is not included in capital pricing; FOB mfg location or Atlanta, GA

One year manufacturer warranty on equipment (terms and conditions to be provided)

30% due upon purchase order, 70% balance due upon shipment

Pricing valid for 45 days

Sales / use tax not included



Example Modular Treatment System

### Backwash Storage Tank

(1) 1,750 Gallon Backwash Tank

Polyethylene vertical storage tank; dimension  
86" dia. X 74" h

in/out/drain bulkhead fittings, level controls

Level Transmitter with 4-20mA signal to AdEdge panel

Offloading and Installation by others

### Backwash Recycle Pump

Automated Control and system intergration

Grundfos vertical centrifugal pump skid

throttling valve, gauges, check valve

3.5 GPM @ 60 psi;

Local control panel with HOA switch

### Post Filtration

(1) BFN-12 Stainless Steel bag filter housings

Pressure Gauge and Stainless Steel sample valve

(50) 1-Micron Polyfelt bag filters

2" Offset Inlet & Outlet

# Mills Engineering LLC

Water & Wastewater System Design

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October 31, 2011

Don Bohler  
Granite Springs Water Co.  
P.O. Box 12742  
Prescott, AZ 86304

RE: Engineering Services – Arsenic Treatment for Sabrosa Water Company, 13 gpm and 37 gpm Well Treatment Systems

Dear Mr. Bohler:

Mills Engineering, LLC is pleased to send you this proposal for engineering services for the arsenic treatment systems for the Sabrosa and Zorilla wells. The following paragraphs describe our scope of work for the project:

## **Permitting and Construction Tasks:**

1. *Obtain and review information.* Obtain and review any available copies of the existing sites, laboratory results, O and M manuals, and other information. Obtain and review plans of treatment system, design report, operation and maintenance manual, startup and testing plan, sizing data, and any other available information from the manufacturer of the adsorption media.
2. *Site Visit.* Visit sites to review locations and constraints for the installation of the Arsenic treatment system. Take measurements, pictures, and gather information relevant to the design.
3. *Prepare Plans, Report, and Specifications for Permitting.* Draft plans showing the installation and details of the installation of the system. Prepare all calculations and draft O and M manual in a format acceptable to MCESD. Submit documents to MCESD for review and approval.
4. *Installation and Testing Review.* Review installation for compliance with approved plans. Witness and document pressure testing of the piping and treatment tanks after installation.
5. *Disinfection.* Following pressure testing, observe and document chlorine disinfection following the startup plan. Observe sampling of the water following flushing to submit to a certified laboratory for analysis. Obtain a copy of the total coliform bacteria test result from the water operator for the certificate of completion.
6. *Validation Testing.* After disinfection is complete, operator will sample raw water and treated water and test for Arsenic using a test kit. Operator will grab additional samples of the raw and treated water and submit to a certified laboratory for analysis of Arsenic. Obtain copies and review Arsenic test results. Include results with the certificate of completion.

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7. *Final Operation and Maintenance Manual.* Prepare a specific O and M manual and furnish three copies in three ring binders.
8. *Engineer's Certificate of Completion.* Submit the documentation of the testing, as-built drawings, sealed O and M manual and the sealed Engineer's Certificate of Completion to ADEQ.

The estimated costs for the engineering services tasks listed above are as follows for each site:

Obtain and Review Information, Prepare Plans and Reports	\$1800
Site Visit	\$300
Installation Review and Witness Testing	\$600
Disinfection Review	\$300
O and M Manual	\$300
Engineer's Certificate of Completion	<u>\$500</u>
TOTAL	\$3800

The above costs for the two sites will total \$7600. If the two sites are designed, permitted, submitted, and constructed at the same time, thereby reducing trips to the site to review installation and witness testing by combining them, the total for the two sites will be: \$6200.

These fees do not include the MCESD permit and review fees (\$1000 initial fee per treatment system), surveying, grading and drainage plans, special use permits, zoning variance, soil testing, gray water system design, sewer or septic system design, drinking water system design other than described above or hydraulic modeling, flow testing, pressure testing other than described above, water connection fees, soil and compaction testing, legal description of any lot splits, or recording of any legal descriptions with the County recorder's office. Please note that this proposal includes the attached Standard Terms and Conditions. Additional tasks may be added for an additional fee.

We are pleased to provide you with this proposal and look forward to your positive response. You may fax a copy of this page to us and mail one set of originals back to us signifying your acceptance of this proposal.

If you have any questions, please contact me.

Sincerely,  
**Mills Engineering, LLC**



Kathryn Mills, P.E.  
Member

I AGREE WITH THE ABOVE:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

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## Standard Terms and Conditions

1. All required services outside of SCOPE OF WORK outlined will be provided upon the CLIENT'S request and will be billed at the rates quoted on the CURRENT FEE SCHEDULE. All fees for services quoted hereon are good for sixty (60) days.
2. Fees outlined in this contract will be adhered to subject to site conditions and criteria set forth by the CLIENT and the requirements of all applicable governmental agencies, utility companies, etc., in effect on the date of the ENGINEER'S signing of this contract. When an architectural site plan, survey, building plan or other plan is to be used as the basis for the ENGINEER'S plans or designs, no work by the ENGINEER will commence until the plans have been received. Subsequent changes to the plans which require additional work by the ENGINEER will result in extra charges at the rates quoted on the CURRENT FEE SCHEDULE.
3. In the event that a question of claim may arise as to an error or omission in the ENGINEER'S work or plans, the ENGINEER will assume no liability for errors or omissions unless notified within 48 hours of the CLIENT'S discovery of such. If notified within 48 hours, the ENGINEER will have the right to remedy any such errors or omissions within a reasonable and agreed upon time thereafter, at no additional cost to the CLIENT.
4. The CLIENT shall give authorization to the ENGINEER to commence each item of work as outlined in the SCOPE OF WORK. The CLIENT will be billed half upfront and final upon completion only for work performed.
5. CLIENT will be billed monthly, based on the percentage of work completed and/or hourly charges and reimbursable costs. A finance charge of one and one half percent (1-1/2%) per month (18% annual percentage rate) will be added to portions of accounts over 45 days past due and will result in immediate stoppage of all services until payment is received or other written agreements made. Any and all charges incurred by the ENGINEER to collect past due accounts will be paid by CLIENT. In the event litigation is instituted to enforce the provisions hereof the prevailing party or parties shall be entitled to recover from the other party or parties in addition to all other relief to which such prevailing party or parties may otherwise be entitled all costs, expenses, and fees incurred by such party or parties (including such attorney's fees as shall be fixed by the court sitting without a jury).
6. The CLIENT hereby agrees that the balance as stated on the billing from the ENGINEER is correct, conclusive and binding on the CLIENT unless the CLIENT notified the ENGINEER in writing within ten (10) days of the billing date of the particular item that is alleged to be incorrect.
7. The obligation to provide further services under the SCOPE OF WORK may be terminated by either party upon seven (7) days' written notice. In the event of any termination, the ENGINEER will be paid for all services rendered to the date of termination plus unpaid reimbursable expenses.
8. The ENGINEER will not be responsible for the cost of permits, title company changes, governmental review fees, soils reports, printing, photographic charges, etc., as applicable, except those printing charges necessary for the ENGINEER to do his work. The ENGINEER will be reimbursed for such charges paid by him for the CLIENT at the rates quoted on the CURRENT FEE SCHEDULE.
9. The ENGINEER will not be responsible or liable for the following:
  - a. Any use of plans, specifications, etc., not signed and sealed by the ENGINEER and approved by the appropriate governmental agencies.
  - b. Inaccuracy of data, plans, legal descriptions or any other information supplied by the CLIENT.
  - c. Site soil and geologic conditions.
  - d. Changes to the plans and specifications made by the CLIENT or others.
  - e. Job site conditions.
  - f. The performance of work on this project by any construction contractor or third party.
10. LIMITATION OF LIABILITY. CLIENT agrees that ENGINEER'S liability for errors and omissions with respect to the work undertaken pursuant to this agreement shall be limited in all cases to the amount set forth in this agreement for engineering services or the total amount charged for such services to the extent that additional services outside the SCOPE OF WORK are authorized and performed.
11. All documents furnished by the ENGINEER are instruments of his service. They are not intended to be suitable for reuse or extensions of this project or any other project. Any reuse without specific written approval by the ENGINEER will be at the sole risk of the user and without liability or legal exposure to the ENGINEER.
12. Neither the CLIENT nor ENGINEER shall assign, sublet or transfer any rights under or interest in this contract without the written consent of the other. Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than the CLIENT or ENGINEER.
13. The ENGINEER makes no representation concerning any cost estimate figures made in connection with maps, plans, specifications or drawings other than that all cost figures are estimates only and the ENGINEER shall not be responsible for fluctuations in cost or quantity figures.
14. The CLIENT agrees to cooperate in every way requested by the ENGINEER to expedite the completion of the work set forth in this contract. The CLIENT agrees to provide the ENGINEER access to the property involved and to make available any records, documents, deeds, legal descriptions, or other items requested by the ENGINEER for the reasonable pursuit of the completion of the work.



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15. The ENGINEER makes no warranty either expresses or implied, as to his findings, recommendations, specifications, or professional advice except that these were promulgated after being prepared in accordance with generally accepted engineering practices and under the direction of registered professional engineers.
16. The preparation of Environmental Impact Statements and/or similar environmental documents is not included in this contract.
17. There are not understandings or agreements except as herein expressly stated.

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## **FEE SCHEDULE JANUARY 2008**

PERSONNEL	RATE/HOUR
Computer Operator (CAD)	\$70
Project Engineer	\$120
Outside Services (Client Authorized)	Cost + 15%